Selected Grants

SELECTED GRANTS

DIVISION OF SYNTHETIC CHEMISTRY
— Organoelement Chemistry —

Tokitoh, N.
Creation of Novel Catalysts Centered on the Coordination Diversity of Heavy Typical Elements
Grant-in-Aid for Scientific Research on Innovative Areas "Stimuli-responsive Chemical Species for the Creation of Functional Molecules"
28 June 2012–31 March 2017

Tokitoh, N.
Synthesis of Heavier Group 14 Element Analogues of Phenyl Anion and Their Properties
Grant-in-Aid for Scientific Research on Innovative Areas "Stimuli-responsive Chemical Species for the Creation of Functional Molecules"
1 April 2016–31 March 2019

Sasamori, T.
Construction of [2]Ferrocenophanes Linked by π-Bond between Heavier Group 14 Elements and Control of Their Ring-opening Polymerization
Grant-in-Aid for Scientific Research on Innovative Areas "Emergent Chemistry of Nano-scale Molecular Systems" and "New Polymeric Materials Based on Element-Blocks"
1 April 2013–31 March 2017

Sasamori, T.
Development of Transformations of Small Molecules and Multicomponent Couplings Utilizing Low-valent Compounds of Heavier Group 14 Elements
Grant-in-Aid for Scientific Research (B)
1 April 2015–31 March 2018

Sasamori, T.
Construction of d-π Electron Systems Containing Heavier Group 14 Elements and Their Functionalization
Grant-in-Aid for Challenging Exploratory Research
1 April 2015–31 March 2017

Mizuhata, Y.
Construction of Silicon-containing Dehydroannulenes and Their Aromaticity and Antiaromaticity
Grant-in-Aid for Scientific Research (C)
1 April 2014–31 March 2017

— Structural Organic Chemistry —

Murata, Y.
Creation and Development of Nanoscale Laboratory
Grant-in-Aid for Scientific Research (S)
1 June 2017–31 March 2022

Murata, Y.
Spherical π-Figuration Based on Functionalization of Sub-Nano Space
Grant-in-Aid for Scientific Research on Innovative Areas "π-System Figuration"
1 April 2017–31 March 2019

Wakamiya, A.
Development of High Performance and Environmentally Friendly Perovskite Type Solar Cells
Advanced Low Carbon Technology Research and Development Program (ALCA)
16 November 2016–31 March 2021

— Synthetic Organic Chemistry —

Kawabata, T.
Regioselective Molecular Transformation of Multifunctionalized Molecules
Grant-in Aid for Scientific Research (S)
1 April 2014–31 March 2018

Furuta, T.
Direct Intra and Intermolecular Aldol Reaction by Catalytic Discrimination of Aldehydes
Grant-in-Aid for Scientific Research (C)
1 April 2014–31 March 2017

Ueda, Y.
Site-Selective Molecular Transformation Promoted by Anion-Exchange of Cationic Intermediates in Nucleophilic Catalysis
Grant-in-Aid for Young Scientists (B)
1 April 2015–31 March 2017

Ueda, Y.
Synthesis of Carbohydrate-Related Middle Molecules Based on Sequential Site-Selective Functionalization
Grant-in-Aid for Scientific Research on Innovative Areas
1 April 2016–31 March 2018

Abbreviations and acronyms

JST : Japan Science and Technology Agency
MEXT : Ministry of Education, Culture, Sports, Science and Technology
METI : Ministry of Economy, Trade and Industry
NEDO : New Energy and Industrial Technology Development Organization

— Advanced Inorganic Synthesis —

Teranishi, T.
Synthesis of Magnetic Nanoparticles for Creating Novel Nanocomposite Magnetic Materials
Elements Strategy Initiative, MEXT
1 July 2012–31 March 2022

Teranishi, T.
Development of Green Sustainable Chemical Process
Mirai Kaitaku Research Project, NEDO
1 November 2012–31 March 2022

Teranishi, T.
Novel Development of Asymmetry Chemistry in Inorganic Nanocrystals
Grant-in-Aid for Scientific Research on Innovative Areas
30 June 2016–31 March 2021

Teranishi, T.
Formation of Novel Metallic Phase Nanoparticles and Development of Their Catalytic Properties
Grant-in-Aid for Scientific Research (B)
1 April 2016–31 March 2019

Teranishi, T.
Enhancement of Tightly Bound Hydrogen Storage Property of Pd Nanodisks by Visible-to-Near Infrared Plasmons
Grant-in-Aid for Challenging Exploratory Research
1 April 2016–31 March 2018

Sakamoto, M.
Development of Transparent Energy Conversion System Using the Heavily-doped Semiconductors as a Light Harvesting Layer
Grant-in-Aid for Challenging Research (Exploratory)
1 April 2017–31 March 2019

Sakamoto, M.
Fabrication of Highly Efficient Up Conversion Nanocrystal Driven by IR Excitation
Grant-in-Aid for Scientific Research on Innovative Areas
1 April 2017–31 March 2019

Saruyama, M.
Synthesis and Structure Specific Function of Multi-hetrostructured Semiconductor Nanoparticles
Grant-in-Aid for Young Scientists (B)
1 April 2017–31 March 2019

Sato, R.
Coinage-Metal-Free Plasmonic Metal Alloys for Visible Spectrum
Grant-in-Aid for Challenging Research (Exploratory)
1 April 2017–31 March 2020

DIVISION OF MATERIALS CHEMISTRY
— Chemistry of Polymer Materials —

Tsujii, Y.
Reinforcement of Resiliency of Concentrated Polymer Brushes and Its Tribological Applications – Development of Novel "Soft and Resilient Tribology (SRT)" System
ACCEL Program, JST
1 September 2015–31 March 2019

Ohno, K.
Development of Ionic Liquid-Containing Blend Films
PRESTO (Precursory Research for Embryonic Science and Technology), JST
1 October 2013–31 March 2017

— Polymer Controlled Synthesis —

Yamago, S.
New Organic Chemistry and Material Science of Curved π-Conjugated Molecules
Grant-in-Aid for Scientific Research (S)
1 April 2016–31 May 2020

— Inorganic Photonics Materials —

Mizuochi, N.
High Sensitive and High Resolution Quantum Nano-sensor by Diamond
Grant-in-Aid for Scientific Research (A)
1 April 2016–31 March 2021

Mizuochi, N.
Innovative Magnetic Sensor Based on Nano-electronics of Carbon Materials
Core Research for Evolutional Science and Technology (CREST), JST
1 April 2014–31 March 2019

Morishita, H.
Electrical Coherent Detection of Electron Spin of NV Centers in Diamond
Grant-in-Aid for Young Scientists (B)
1 April 2016–31 March 2018

— Nanospintronics —

Ono, T.
Spin-orbitronics and Device Application
New Research Projects under Specially Promoted Research
1 April 2015–31 March 2020

DIVISION OF BIOCHEMISTRY
— Biofunctional Design-Chemistry —

Futaki, S.
New Strategies for Intracellular Delivery of Biopharmaceuticals
Grant-in-Aid for Scientific Research (A)
1 April 2015–31 March 2018

Imanishi, M.
Construction of Strategies for Sequence Specific Epigenomic Manipulation
Grant-in-Aid for Scientific Research (B)
1 April 2016–31 March 2019

— Molecular Biology —

Aoyama, T.
Plant Epidermal Cell Differebtiation Regulated by the Transcription Factor GL2
Grant-in-Aid for Scientific Research (B)
1 April 2016–31 March 2020

Aoyama, T.
Mechanism for Establishment of Planar Polarity in Plant Cell Morphogenesis
Grant-in-Aid for Scientific Research (C), Special Field
1 April 2016–31 March 2019

Fujiwara-Kato, M.
Elucidation of Phospholipid Signaling for Root Hair Elongation in Plants
Grant-in-Aid for Young Scientists (B)
1 April 2017–31 March 2019

— Chemical Biology —

Uesugi, M.
Control and Analysis of Cells by Synthetic Small Molecules
Grant-in-Aid for Scientific Research (S)
30 May 2014–31 March 2019

Uesugi, M.
Chemical Biological Exploration of New Functions of Endogenous Lipid-related Morecules
AMED-CREST
1 October 2014–31 March 2020

Uesugi, M.
Chemical Signals of Synthetic Nutrient Conjugates
Grant-in-Aid for Scientific Research on Innovative Areas
1 July 2017–31 March 2022

DIVISION OF ENVIRONMENTAL CHEMISTRY

— Molecular Materials Chemistry —

Kaji, H.
Fundamental Science of Organic Devices Based on Detailed Structural Analysis and Theoretical Chemistry
Grant-in-Aid for Scientific Research (A)
1 April 2017–31 March 2020

Shizu, K.
Density Form of Electronic Transitions and Its Applications to Electroluminescent Materials
Grant-in-Aid for Young Scientists (B)
1 April 2017–31 March 2019

— Hydrospheric Environment Analytical Chemistry —

Sohrin, Y.
Development of Novel Proxies for Paleoceanography on the Precise Analysis of Stable Isotopes of Heavy Metals
Grant-in-Aid for Challenging Exploratory Research
1 April 2014–31 March 2017

Sohrin, Y.
Development of Heavy Metal Stable Isotope Marine Chemistry to Understand Marine Environment and Ecosystem
Grant-in-Aid for Scientific Research (A)
1 April 2015–31 March 2018

Minami, T.
Research on Vertical Distribution of Bioactive Trace Metals between the Pacific Sector of the Antarctic Ocean and the South Pacific
Mr. Mitsumasa Itou Commemorative Research Fund, Research Institute for Oceanochemistry
1 April 2017–31 March 2018

— Chemistry for Functionalized Surfaces —

Hasegawa, T.
Development of ROA Imaging and its Application to Visualization of Atropisomers for a Study of Fluoroorganic Chemistry
Grant-in-Aid for Scientific Research (A)
1 April 2015–31 March 2020

Hasegawa, T.
Development of a Novel Analytical Spectroscopy for Strategic Molecular Design of a Fluorine-containing Acryl Polymer Enabling Us to Overcome Environmental Regulations
Matching Planner Program: Cooperation Research with a Company
1 June 2016–31 March 2017

Shimoaka, T.
Development of Analytical Techniques for Studying the Structure and Property of a Polymer Influenced by Minute Water Molecules Involved in a Polymer Thin Film
Grant-in-Aid for Young Scientists (B)
1 April 2014–31 March 2017

Shimoaka, T.
Molecular Interaction Analysis for Understanding Perfluoroalkyl Compound-specific Properties
Grant-in-Aid for Young Scientists (B)
1 April 2017–31 March 2020

— Molecular Microbial Science —

Kurihara, T.
Mechanism of Biogenesis of Membrane Microdomain Containing Polyunsaturated Fatty Acids in Bacteria and Its Physiological Functions
Grant-in-Aid for Scientific Research (B)
1 April 2015−31 March 2018

Kurihara, T.
Exploration and Development of Cold-Adapted Microorganisms for Low-Temperature Biotechnology for Material Production and Environmental Conservation
Grant-in-Aid for Scientific Research (B)
1 April 2017−31 March 2020

Kurihara, T.
Analysis of Cold-Adaptation Mechanism of Food Spoilage Bacteria and Its Application to Food Industry
Grant-in-Aid for Challenging Exploratory Research
1 April 2015−31 March 2017

Kawamoto, J.
Development of a Membrane Protein Production System by Using Tailor-made Membrane Vesicles Synthesized by Extremophiles
Grant-in-Aid for Challenging Exploratory Research
1 April 2016−31 March 2018

Ogawa, T.
Enzymatic Analysis of Molecular Basis for *de novo* Synthesis of Phosphatidic Acid
Grant-in-Aid for Young Scientists (B)
1 April 2017−31 March 2019

DIVISION OF MULTIDISCIPLINARY CHEMISTRY

— Polymer Materials Science —

Takenaka, M.
Nano-Control Technologies for DSA Nano-Patterning
Nano Defect Management Project
1 July 2016–31 March 2018

Ogawa, H.
Development of Visualizing Method Through Cooperative Small Angle X-ray Scattering Coupled with Computed Tomography (SAXS-CT) and Information Science
Strategic Basic Research Programs, PRESTO (Precursory Research for Embryonic Science and Technology), JST
1 September 2016–31 March 2020

— Molecular Rheology —

Watanabe, H.
Relationship between Chemical Structure and Extensional Behavior of Entangled Polymer Chain
Grant-in-Aid for Scientific Research (B)
1 April 2015–31 March 2018

Matsumiya, Y.
Experimental Test on the Dynamics of Telechelic Polymers
Grant-in-Aid for Scientific Research (C)
1 April 2015–31 March 2018

ADVANCED RESEARCH CENTER FOR BEAM SCIENCE
— Particle Beam Science —

Iwashita, Y.
Fundamental Technology Development for High Brightness X-ray Source and the Imaging by Compact Accelerator
Photon and Quantum Basic Research Coordinated Development Program
1 April 2013–31 March 2017

— Laser Matter Interaction Science —

Sakabe, S.
Proof of Concept for Electron Optical System Using Intense Laser-driven Surface Wave
Grant-in-Aid for Scientific Research (A)
1 April 2016–31 March 2019

Hashida, M.
Stable Formation of Advanced Functionality on Metal Surface Produced by High Electric Field of Laser Pulse
Grant-in-Aid for Scientific Research (C)
1 April 2016–31 March 2019

Hashida, M.
Advanced Research Program for Energy and Environmental Technologies/Manufacturing Technologies Development of High Quality Laser Material Processing for Inducing New Functionalities
New Energy and Industrial Technology Development Organization
4 January 2016–4 January 2017

Inoue, S.
Demonstration of Laser-driven Ultrafast and Intense Electron Source with Solid-plasma Hybrid Cathode
Grant-in-Aid for Young Scientists (B)
1 April 2016–31 March 2018

— Electron Microscopy and Crystal Chemistry —

Kurata, H.
Advanced Characterization Nanotechnology Platform at Kyoto University
Nanotechnology Platform Project, MEXT
2 July 2012–31 March 2022

Kurata, H.
Development of Precise Spatially Resolved EELS and Analysis of Interfacial Electronic States
Grant-in-Aid for Scientific Research (B)
1 April 2017–31 March 2020

Kurata, H.
State Analysis of Organic Nanomaterials by High-Resolution EELS
Grant-in-Aid for Challenging Exploratory Research
1 April 2016–31 March 2018

Haruta, M.
Electronic State Mapping Using Oxygen
Grant-in-Aid for Young Scientists (A)
1 April 2014–31 March 2018

Haruta, M.
Basic Research of Atomic Resolution Organic Crystal Image Using STEM
Grant-in-Aid for Challenging Exploratory Research
1 April 2014–31 March 2017

INTERNATIONAL RESEARCH CENTER FOR ELEMENTS SCIENCE
— Synthetic Organotransformation —

Takaya, H.
Artificial Enzymes based on Metalated Peptide
Grant-in-Aid for Scientific Research (B)
1 April 2017–31 March 2019

Iwamoto, T.
Development of Novel Enantioconvergent Transformation of Amino Acid
Research Encouragement Grants, The Asahi Glass Foundation
1 April 2017–31 March 2018

Iwamoto, T.
Development of Direct Chlorination with Sodim Chloride
Grant for Japan-related Research Projects, The Sumitomo Foundation
16 November 2017–30 November 2018

— Advanced Solid State Chemistry —

Shimakawa, Y.
Solid-state Chemistry for Transition-metal Oxides: Exploring for New Materials with Novel Functionalities
JSPS Core-to-Core Program
1 April 2016–31 March 2020

— Organometallic Chemistry —

Ozawa, F.
Mixed-Ligand Approach to Palladium-Catalyzed Direct Arylation Polymerization
Grant-in-Aid for Scientific Research (B)
1 April 2017–31 March 2020

Wakioka, M.
Development of High Performance π-Conjugated Polymer Based on cis-trans Photoisomerization
Grant-in-Aid for Scientific Research (C)
1 April 2017–31 March 2020

Takeuchi, K.
Development of FLP Type Acid-Base Catalyst Using PNP-Pincer Type Phosphaalkene Complexes as Lewis Acid
Grant-in-Aid for Young Scientists (B)
1 April 2017–31 March 2020

— Nanophotonics —

Kanemitsu, Y.
Evealuation of Nonradiative Carrier Reconbination Loss in Concentrator Heterostructure Solar Cells
CREST(Core Research for Evolutional Science and Technology), JST
1 October 2011–31 March 2017

Kanemitsu, Y.
Design of Next-generation Flexible Photonic Devices Based on Metal-halide Perovskites
CREST(Core Research for Evolutional Science and Technology), JST
1 October 2016–31 March 2022

BIOINFORMATICS CENTER
— Chemical Life Science —

Ogata, H.
Neo-virology, the raison d'être of Viruses – Deciphering the Mechanisms of Virus-Host Co-Existence in Aquatic Environments
Grant-in-Aid for Scientific Research on Innovative Areas
30 June 2016–31 March 2021

Ogata, H.
Probabilistic and Statistical Theory on Non-Abelian Topological Semigroup A* and its Application to Environmental Microbiology and Bioengineering
Grant-in-Aid for Scientific Research (B)
19 July 2016–31 March 2019

Ogata, H.
A Holistic Ecosystemic Investigation on Marine Giruses, Virophages and their Eukaryotic Hosts
Grant-in-Aid for Scientific Research (C)
1 April 2014–31 March 2017

Ogata, H.
Are Viruses Elementary Particles that Generate and Maintain the Diversity of Marine Organisms?
Pursuit of Ideal, The Canon Foundation
1 April 2014–31 March 2017

Goto, S.
Development of Integrated Proteome Database jPOST
Database Integration Coordination Program, JST
1 April 2015–31 March 2018

Goto, S.
Bioinformatics for Marine Microbial Genomes and Environmental Data
CREST (Core Research for Evolutional Science and Technology), JST
1 October 2012–31 March 2017

Goto, S.
Elucidation on Evolutionary Mechanisms of Antigenic Variation Gene Families
Grant-in-Aid for Scientific Research (B)
1 April 2014–31 March 2018

Ogata, H.
Deep Understanding of the Diversity and Ecology of Giant Viruses in Aquatic Microbial Communities
The Kyoto University Foundation
1 July 2017–31 March 2018

Ogata, H.
Innovative Foundation of Viral Oceanography based on a Comprehensive Virome Study
Grant-in-Aid for Scientific Research (B)
1 April 2017–31 March 2020

Ogata, H.
Elucidation of the Origin and Mechanism of Success of Diatoms through Comparative Biological Analyses between Ancient Centric Diatoms and Their Sister Paramales
Grant-in-Aid for Scientific Research (B)
1 April 2017–31 March 2020

Ogata, H.
Comprehensive Study and Establishment of Application Foundation of Carboxydotrophic Bacteria through Spatio-Temporal Search
Grant-in-Aid for Scientific Research (S)
1 April 2016–31 March 2021

— Mathematical Bioinformatics —

Akutsu, T.
An Approach to Novel Structure Design by Combining Discrete Methods and Statistical Methods
Grant-in-Aid for Scientific Research (A)
1 April 2014–31 March 2019

— Bio-knowledge Engineering —

Mamitsuka, H.
Reinforcement of Resiliency of Concentrated Polymer Brushes and Its Tribological Applications
Strategic Basic Research Program, ACCEL, JST
1 September 2015–31 March 2020

Mamitsuka, H.
Efficiently Inferring Factors Embedded in Multiple Data Matrices
Grant-in-Aid for Scientific Research (B)
1 April 2016–31 March 2019

Yotsukura, S.
Computational Breeding Design of Least Allergen Crops
PRESTO (Precursory Research for Embryonic Science and Technology), JST
1 October 2017–31 March 2019